

Annull object to

tions can thus be obtained by each State desiring the specimens for agricultural colleges or State cabinets.

In the collection of native birds the specimens are labeled to show at a glance which are the friends of the farmer by destroying injurious insects, or which are the enemies that prey upon his crops. The plates of insects are especially designed to show such insects as are destructive to vegetation, so that the farmer or fruit grower may recognize them at a glance. Then, by referring to a manuscript work by Professor Glover, the entomologist of the Department, he can immediately learn all that is known of their habits, and the best means to exterminate them. All inquiries relative to noxious insects of the farm made by agriculturists or others desiring such information can be readily answered and the best known remedies recommended.

In the cases devoted to the animal and vegetable fibers they are shown in all their stages, from the seed to the manufactured articles, or from the raw material, as in the

case of wool, to the various fabrics made from it.

The collection of domestic poultry shows type specimens of such as are recommended as best for market, laying eggs, or for any particular purpose. The design of the economic collection of flours manufactured from cereals, dye-stuffs, gums, oils, &c., is to show what can be made from various native materials, or to suggest the various products imported from abroad that should be grown in this country.

#### 5. DIVISION OF HORTICULTURE.

This consists of an experimental garden with the arboretum, and is devoted to the introduction of new and valuable and promising plants, shrubs, and trees, native and foreign, suitable to the various sections of the Union. What is known as the Botanical Garden has no connection with this division or the Department.

### WHAT IT HAS ACCOMPLISHED.

Now, Mr. Speaker, what has the Department accomplished? Since the claims of agriculture have been recognized and fostered by Government, the excellence and variety of its machinery and implements have surpassed those of all other nations.

In 1847 the number of agricultural patents granted was but 47; in 1863 it had increased to 390; in 1865 to 642; in 1866 to 1,778; and for each of the last two years it has reached nearly 2,000. These improvements are rapidly revolutionizing the agriculture of the West, and reducing to the lowest point ever attained the proportion of manual labor employed in the operations of farming, saving at least fifty per cent. of

the manual labor required in agricultural pursuits.

Under its present able head the Department has distributed the last year nearly six hundred thousand packages of seed, including upward of thirty thousand sacks of winter wheat imported by the Commissioner, besides new varieties of oats and other cereals, which have been sent into every congressional district in the Union; thus affording at once a more general diffusion of new and valuable kinds of grain than would or could be done by private enterprise in many years. As the result of this distribution of seed by the Department from year to year, there are now raised hundreds of thousands of bushels of oats, incomparably superior to the old varieties, and in many instances nearly doubling the crop. And so of the increased quantity and superior quality of the wheat in many of the States. The same might be said of several of our other products. This increase has contributed millions to the wealth of the country, and alone establishes the utility and great benefits resulting from this Department.

It is said that he who makes two blades of grass grow where one did before is a public benefactor. This Department has done this, and more, in many varieties of agricultural products. It has established relations with organized associations for agricultural improvements, whether governmental or otherwise, making exchanges of seeds, plants, and publications. Through an extended correspondence with foreign societies and our consuls abroad it is searching the world for new and valuable plants to acclimatize, new varieties of cereals to test, and, when found valuable, to distribute, thus finding and introducing into our agriculture the valuable products of all countries

suitable and profitable for our cultivation.

Agriculture is the great civilizer of the world. Its improvements and advancements mark national as well as individual progress. Whatever will add to its success, furnish it with valuable inventions and discoveries, are so many steps toward accomplishing the highest forms of civilization and human happiness. In this country, with its bread and fertile acres, the cultivator of the soil is generally its owner. So large a proportion of our population being engaged in this pursuit it must ever be a leading accupation. The great extent of our country and its capabilities make it necessary that there shall always be a great diversity of agricultural labor. To give direction to this diversified agriculture is one great purpose of the Department, and it will be able to lead the way in processes of culture, as well as selection of products and their varieties, in the different localities, and thus enabling farmers to give attention to that culture which promises and secures the best results and rewards.



Another thing: Agricultural colleges, under the liberal land grants of Congress, are being established in different States, under State control. This Department, as a common head, can and will furnish great assistance in the farm education proposed in these colleges.

Like the Bureau of Education, but recently established to concentrate statistics and lead and give information and direction to educational interests in the States, this Department will be able to give the same, and perhaps much greater, facilities in the direction of agricultural education among the people.

#### PUBLIC LANDS.

Intimately connected with this subject is the land policy of the Government, about which I desire to make a few additional remarks. In the early days of the Republic our public lands were regarded as a source of revenue. It was expected from their sale to pay a large proportion of the expenses of the Government; but in later days it was found that, with expense of survey and sale, these expectations were not realized, and a new policy was adopted, and large quantities of the public domain have been used in constructing railroads, endowing colleges, rewarding military services, and stimulating immigration by giving homesteads to all persons who will live on and improve them.

In this way this heritage of the people has largely contributed to the material development of our country. These grants have not always been wisely made, and in many respects have no doubt been great outrages upon the rights of the people. The future policy of the Government should be to so provide by legislation that our public lands should be preserved for actual settlers, and thereby furnish free homes to the landless. Concentration of large quantities in the hands of monopolists and speculators is the great curse of most of the Western States, and has and does impede agricultural im-

Of our public lands about seventy-eight million acres have been granted for schools and colleges, over ten millions of which have been given to agricultural colleges. Two hundred million acres have been appropriated and given to build railroads and other improvements. About seventy-three million acres have been given to our soldiers, their widows and children. The Government still owns about a thousand million acres. This vast domain as fast as it is surveyed is open to settlement under our homestead laws, which give every man or unmarried woman one hundred and sixty acres for the cost of survey and entry, upon living upon and improving the same for the time limited, which is five years, except a soldier, who, under the bill passed by the House, is allowed to count three years of his term of service in the Army, or whatever term under that period he has served, as part of the five years' residence.

In the year 1869, about two and a half million acres were given to homestead and preëmption settlers. In the same year about eight million acres were converted from wild lands into farms, making some sixty thousand farms. We now have over six million real-estate owners, being one in about every six of our population, and nearly one-half of our whole population are engaged in the pursuit of agriculture.

The whole landed property of England is now owned by thirty thousand persons, making one in every six hundred and fifty of its population. One-half of its soil is now owned by about one hundred and fifty persons. Nineteen and a half million acres in Scotland are owned by twelve proprietors. In this country this extensive ownership of the soil, the sense of proprietorship resulting therefrom, encouraging independence of action and thought, constitute the corner-stone of our Republic. The multiplication of these free homes for the people, instilling into their minds the spirit of agriculture and mechanical progress, and education, and moral development, and improvement, will secure freedom, equality, and prosperity among our people, and perpetuity to our Government.

In this grand work, with such support as should be and no doubt will be given to it, the Agricultural Department, in the future as in the past, will be an efficient and important aid to the other branches of the Government. The memorial to which I have alluded alleges that over three million dollars have already been expended upon the Department without any corresponding benefits. Having stated its great benefits in the past, and what it is expected to accomplish in the future, I append to these remarks a statement showing the several appropriations for each year from 1839, the first one made, to and including 1870:

1839, (first appropriation for the promotion of agriculture, from Patent Office	\$1,000
fund)	The same of the sa
1842, (from Patent Office fund)	1,000
1843. (from Patent Office fund)	2,000
1844. (from Patent Office fund)	2,000
1845. (from Patent Office fund)	3,000
1846, (from Patent Office fund)	
1847. (from Patent Office fund)	3,000





Articles.	March.	April.				
SAN FRANCISCO.  Flour, superfine	6 00 to 7 00 2 35 to 2 40	\$5 75 to \$7 25 2 45 to 2 50 2 45 to 2 50				
Corn, white do yellow do  Barley do Oats do Hay, State per ton. Pork, mess per barrel do	1 50 1 50 1 25 to 1 40 1 50 to 1 70 13 00 to 15 50					
Beef, mess	13 to 15 14 to 14½ 27½ to 35	$14 \ 00 \ \text{to} \ 18 \ 00$ $14\frac{1}{2} \ \text{to} \ 15\frac{1}{2}$ $14 \ \text{to} \ 14\frac{1}{2}$ $25 \ \text{to} \ 30$				
Cheese do do Wool, native do do California do do Oregon do do do do California do do do California do do do California do do California do do do California do do California do Californ	10 to 14 20 to 23 20 to 23	10 to 14 18 to 27½ 18 to 27½				

# PRICES OF MIDDLING COTTON.

The following statement of the prices of middling cotton, at the first of each month of the past twenty years, prepared by the editor of the New York Shipping and Commercial List, will be found useful for reference:

						QUOTA	TIONS.	•					ear.
YEARS.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Average of y
1871	$-16\frac{1}{2}$	Cts. 155 25 29 1 29 1 2 3 3	Cts. 151 231 291 291 23 32	Cts. 15\frac{1}{3}7834 284 284 30\frac{1}{3}	Cts. 2318 284 3218 2718	Cts. 225 294 31 273	$Cts.$ $20\frac{1}{4}$ $34\frac{1}{2}$ $32$ $26\frac{1}{4}$	Cts. 20 34½ 30½ 28	Cts.  1934 35 305	Cts.  163 27 261 261 201	Cts.  17 264 254	Cts.  161/8 251/4 251/4	Cts. 21. 02 29. 60 26. 79
1868	35 51½ 120 81½	33 48 83 84 84 88	32 32 44 83 76 89	28 30½ 40 45 71 77	32½ 27½ 34 34 45 83½ 66	31 273 383 46 107 523	$   \begin{array}{r}     32 \\     26\frac{1}{2} \\     36 \\     44 \\     155 \\     73 \\   \end{array} $	$30\frac{1}{2}$ $28$ $36$ $48$ $164$ $63\frac{1}{2}$	$   \begin{array}{r}     30\frac{1}{2} \\     26\frac{1}{2} \\     33 \\     43 \\     43 \\     185 \\     66\frac{1}{5}   \end{array} $	26½ 21½ 42 44½ 125 81	25½ 19 39 56 128 86½	25 <del>1</del> 16 34 50 128 80	26. 79 26. 94 39. 66 58. 96 115. 71 74. 26
1862 1861 1860 1859 1858	$12\frac{1}{4}$ $11\frac{1}{2}$ $12\frac{1}{8}$ $12\frac{1}{8}$ $12\frac{1}{8}$	31 13 12 12 13 13 13 13	23 123 124 125 125 144	28 13½ 11½ 13½ 14½ 14½	26 145 12 12 12 13 13 14 14	31点 14 12 12 12 13 13 14 14 14	38½ 15 12½ 12½ 13 141	47 168 12 13 138 151	48 20½ 12 12¾ 13¼ 153	56 22 1134 128 134 134 153	60 22½ 12½ 12½ 12½	67½ 27½ 11½ 11¾ 12¾ 12¾	41. 13 17. 06 11. 98 12. 42 12. 48
1856 1855 1854 1853	$9\frac{1}{2}$	99 10 10 10 10 10 10 10 10 10 10 10 10 10	10½ 10½ 10½ 10½ 10½ 10½ 8½ 8½	105 105 105 104 103 103 8	112 10 10 10 10 10 10 10 10 10 10 10 10 10	11 11 11 3 9 1 11 10	14½ 11½ 11½ 1958 11 94	158 12 114 198 11 93	154 34 1578 11 10 15	15章 12章 10章 10章 11章 10章	12½ 12½ 12½ 12½ 12½ 12¾ 10¼ 10	112½ 12½ 10 10¾ 10¾ 10¾	14. 09 11. 29 10. 14 9. 87 10. 60
1851	$12\frac{3}{4}$	131	103	1114	11°	91	94	71/2	878	93	81/8	81/2	9. 98



## ENGLISH SHORT-HORN CATTLE SALES.

Thornton's Circular for January, 1871, contains a record of sales of short-horns for the preceding quarter, and much other information of interest to American stockbreeders. From its pages we compile the following:

Short-horn sale of Messrs. Garne & Son, and Mr. George Garne, at Churchill Heath, October 4, 1870:

						- 20
54 cows and heifers, at a	in average	of £36 28. 1	La	1,901	19	0
3 bulls, at an average o	I £31 98			112	6	U
57 averaged £36 4	s. 3d. Tot	21		2.064	6	0

Three cows brought respectively 77, 75, and 85 guineas; the best bull, 50 guineas. The lowest sale was that of a two-year old heifer, at 19 guineas.

Short-horn sale of the entire herd of William Butler, at Badminton, October 5, 1870:

62 cows and heifers, at an average of £39 9s. 2d	2,446	10	0
74 averaged £38 5s. 4d. Total	2,831	17	0

The tribe of Darlingtons, comprising 11 animals, averaged £85 3s., the highest, a two-year old heifer, bringing 155 guineas.

Short-horn sale of selected stock from the herd of Lady Pigot, at Branche's Park, Newmarket, October 7, 1870:

DI CONSCILLE ILCIA CON COLOR CON COLOR CON COLOR CON COLOR C	978 195	12	0
30 averaged £39 2s. 7d. Total	,173	18	0

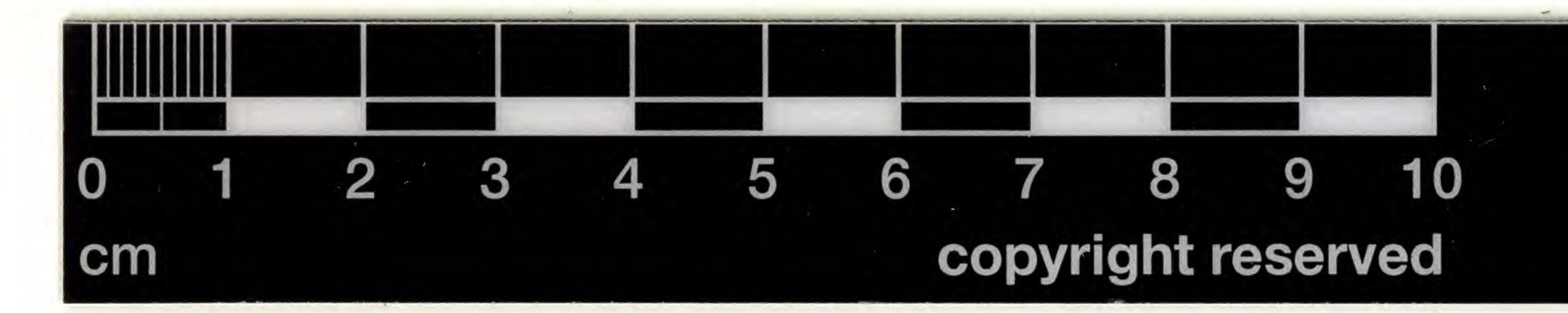
Short-horn sale of Sir George R. Philips, at Weston Park farm, Warwickshire, October 18, 1870, comprising several entire tribes:

38 cows and heifers, at an average of £48	1,824 252	s. a. 7 6 0	
47 averaged £44 3s. 7d. Total	2,076	76	

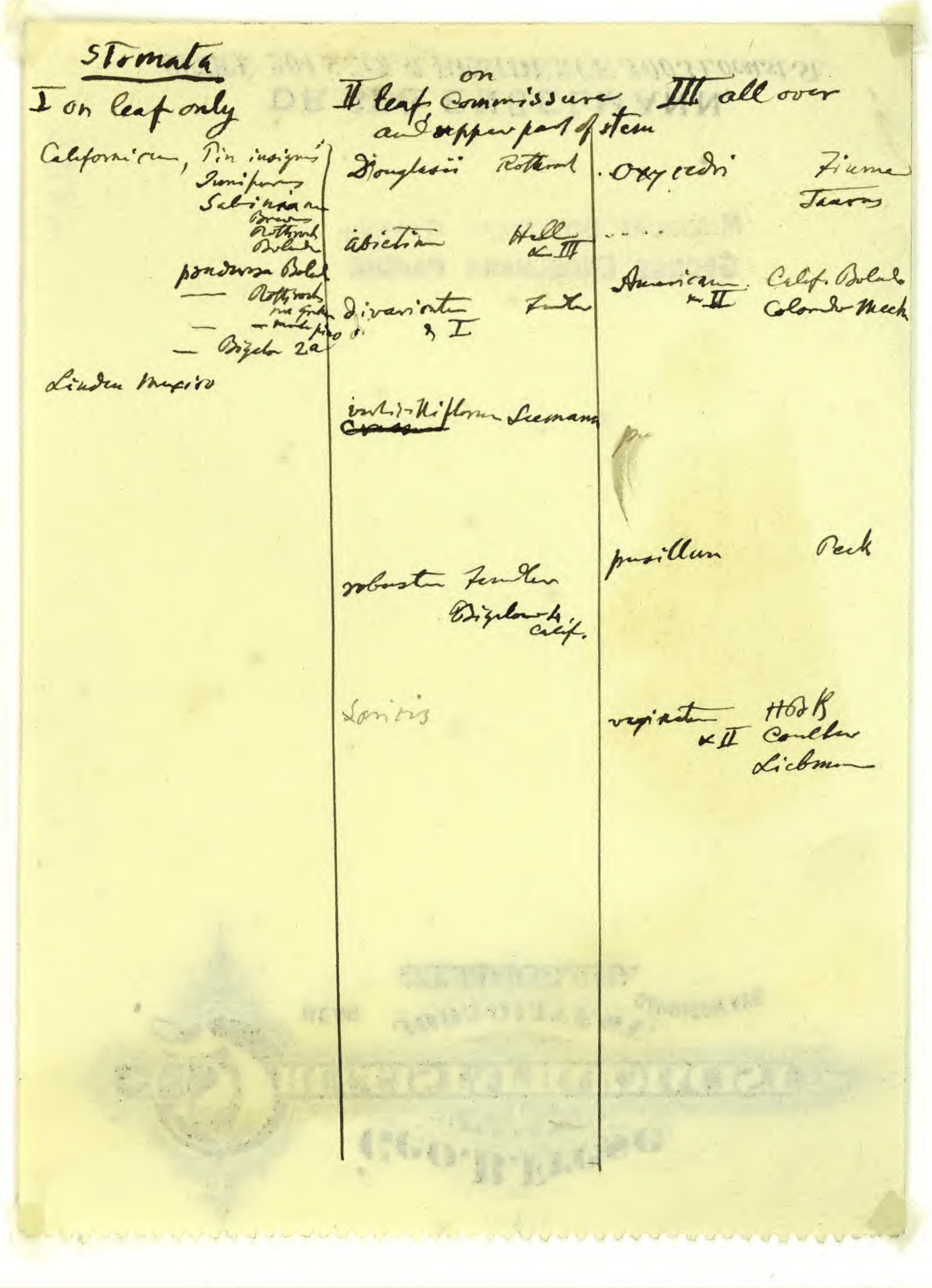
Thirteen Sylphs and Knightleys averaged £83 16s. 9d.; 11 Welcomes averaged £33 4s. 4d.; 7 Gwyneths averaged £26 2s. The highest in the whole lot, a two-year old heifer, brought 205 guineas.

Six short-horn bulls from the Brailes herd, the property of H. J. Sheldon, esq., sold at the Weston Park farm sale for £264 12s., averaging

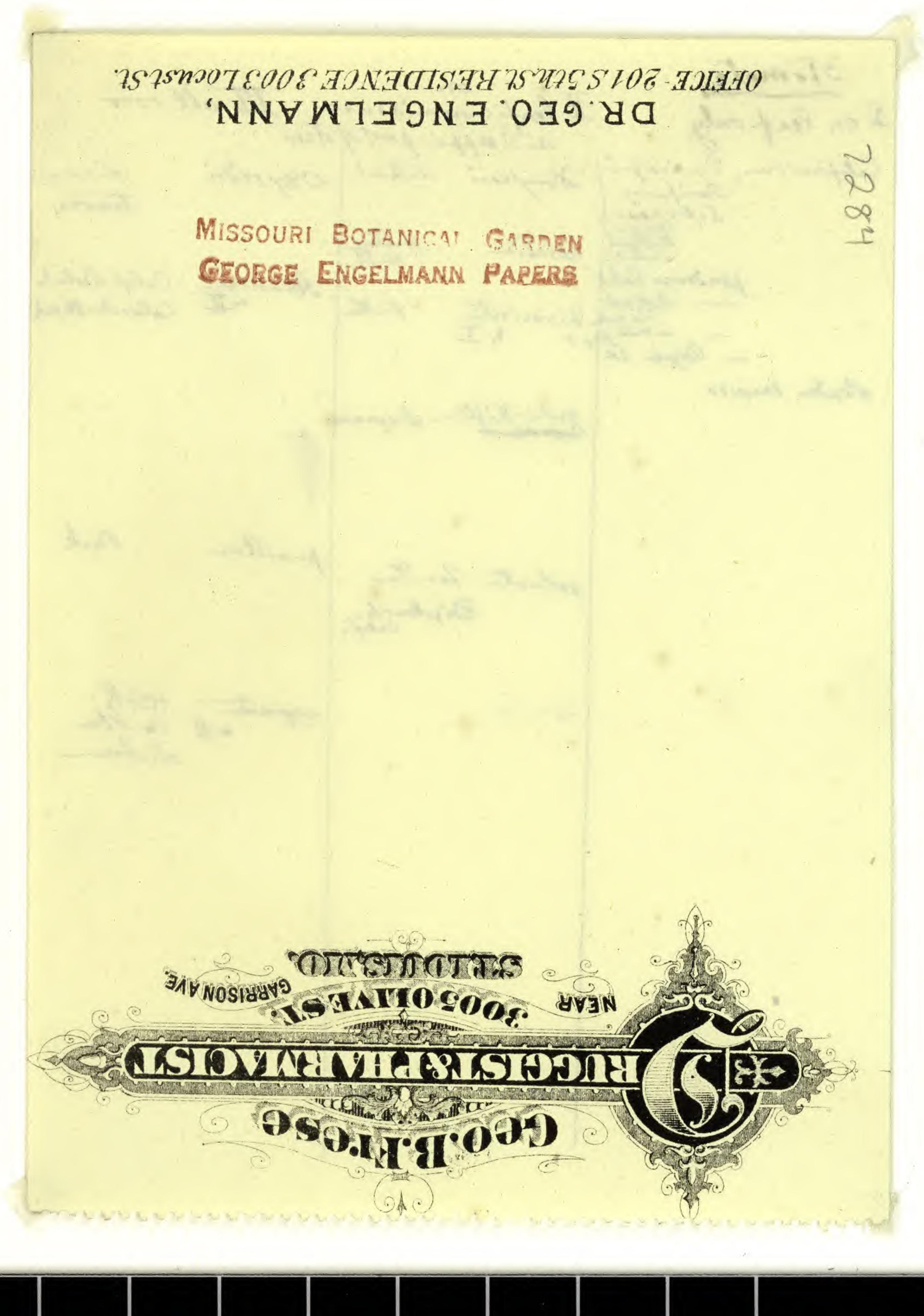
£44 2s.







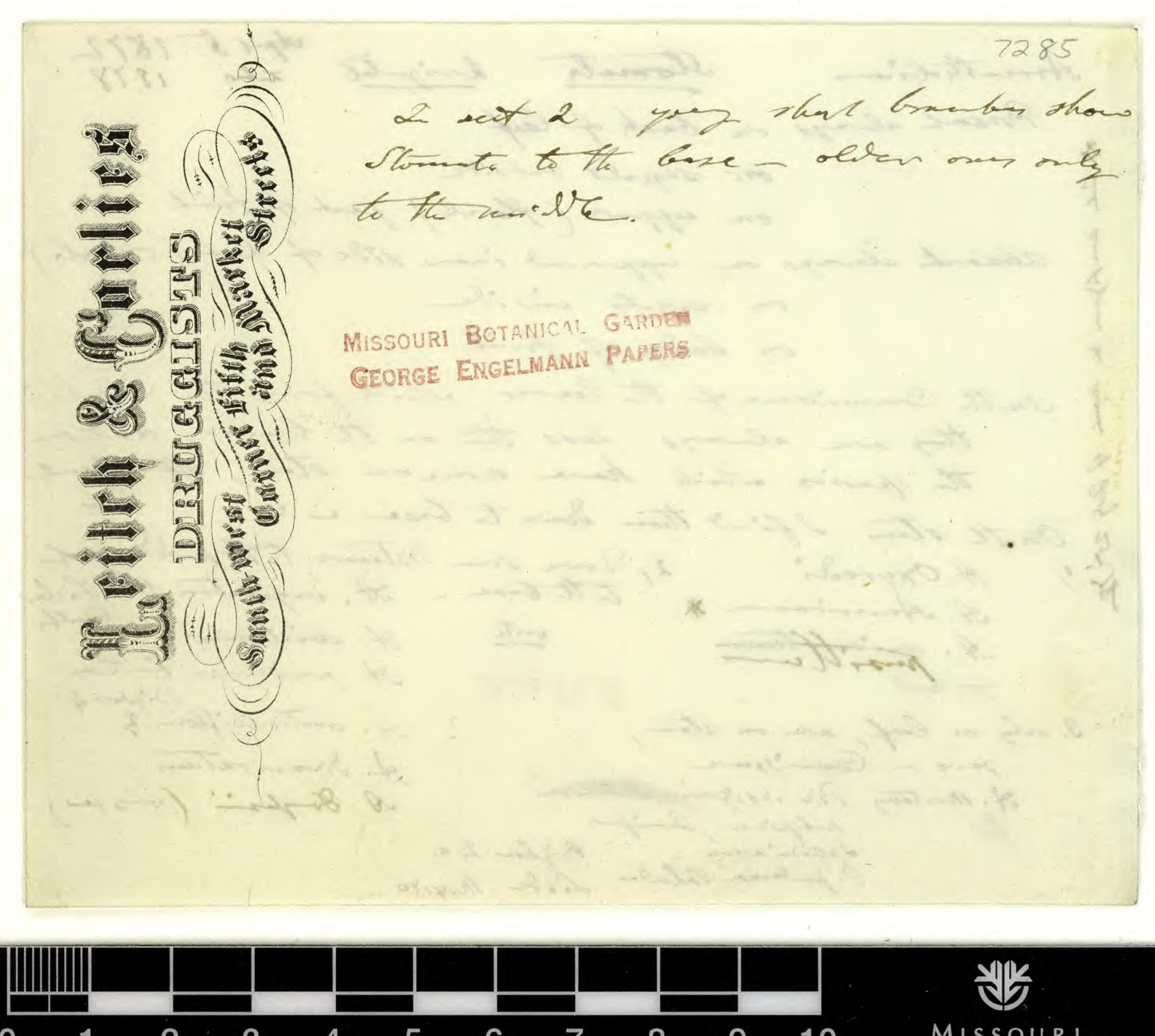


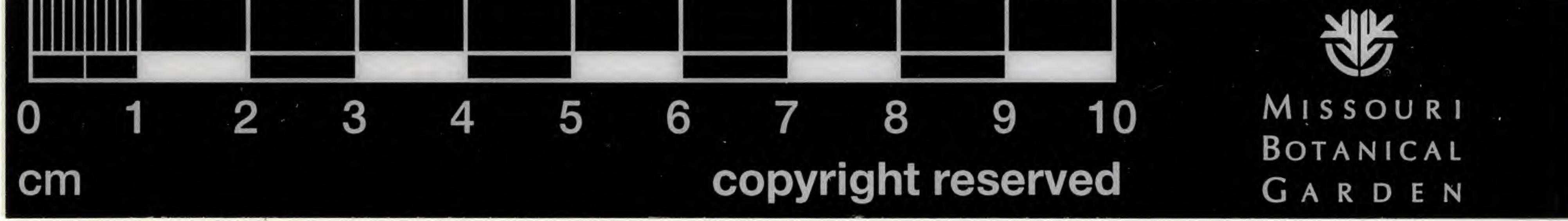




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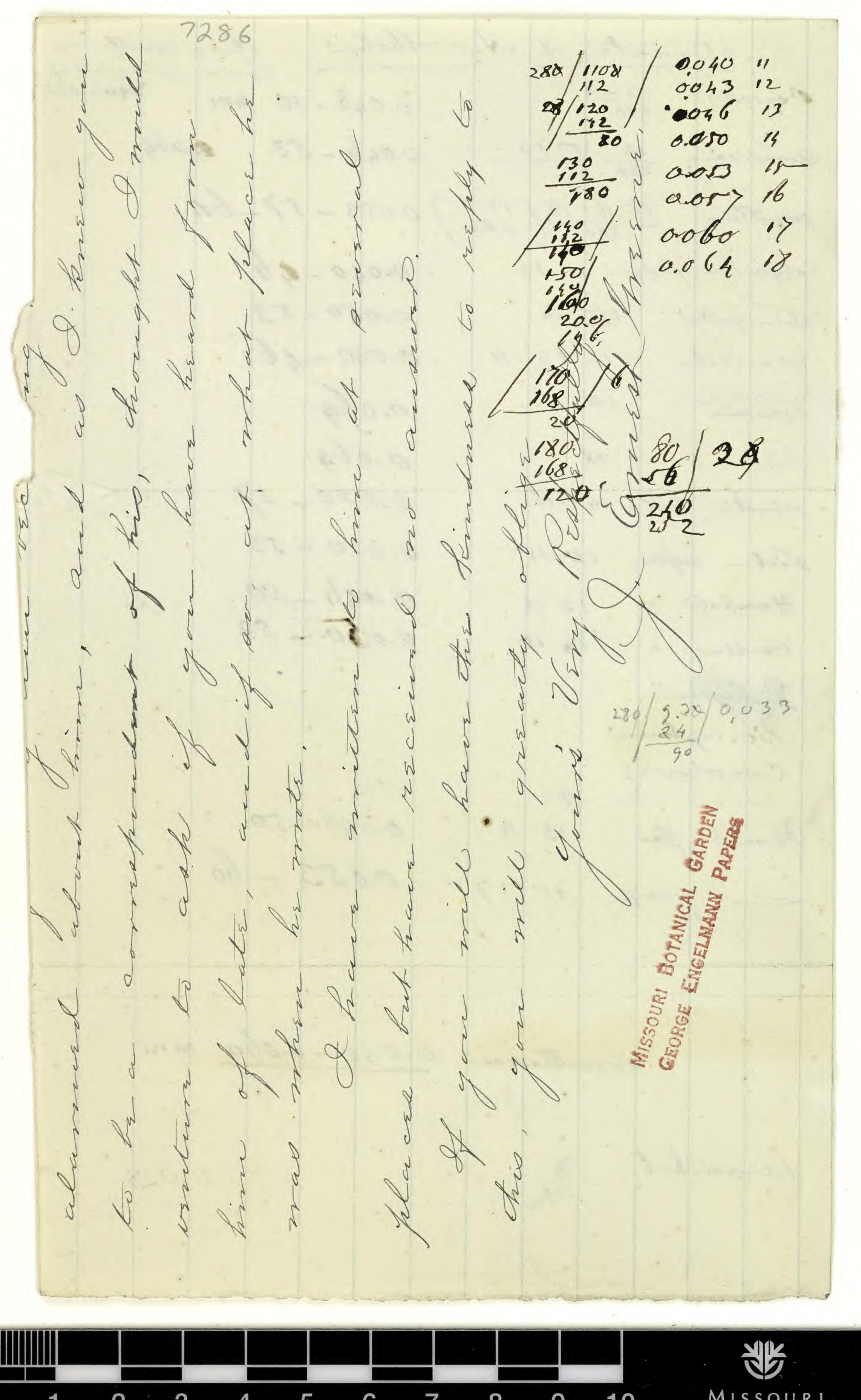




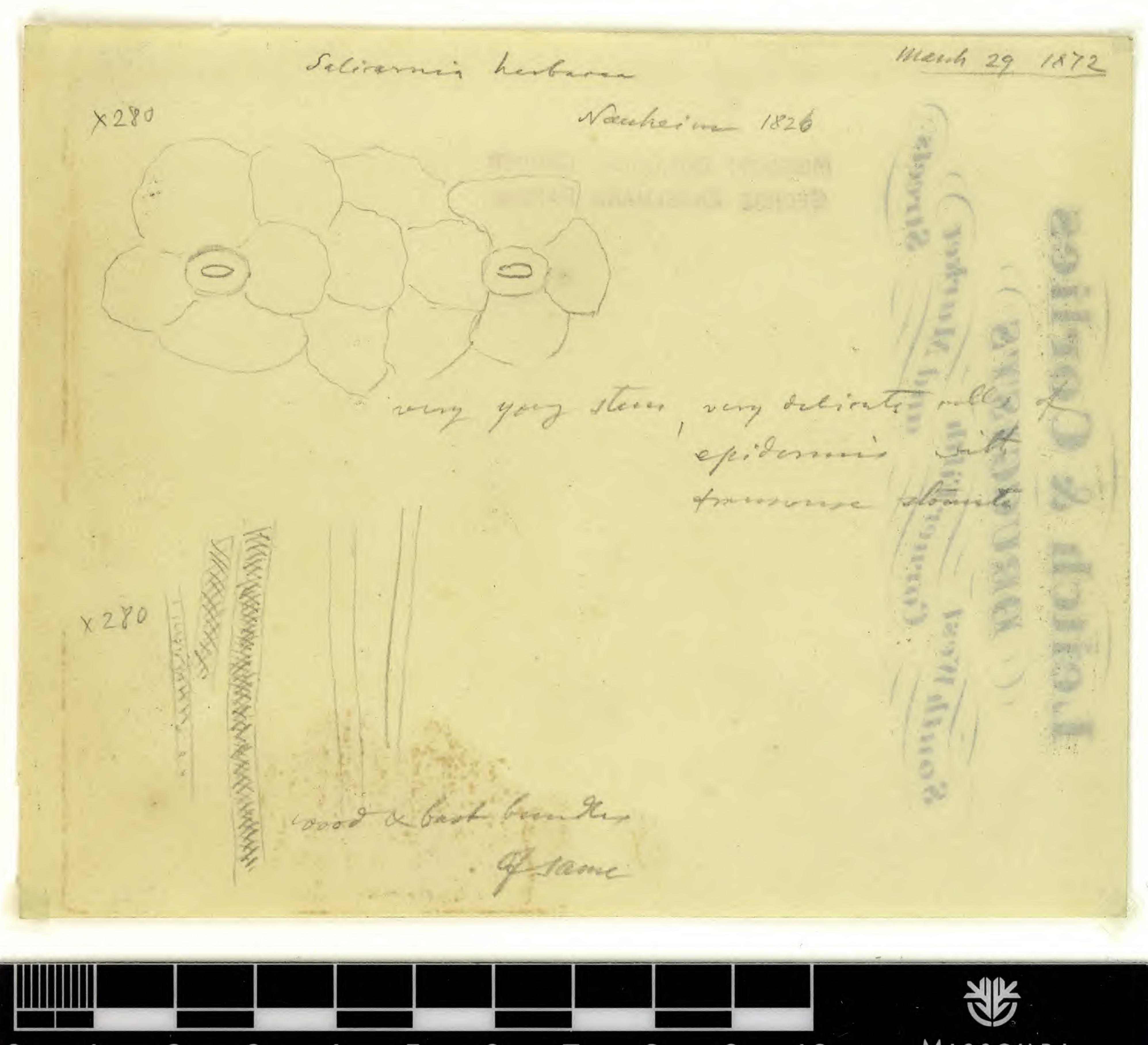


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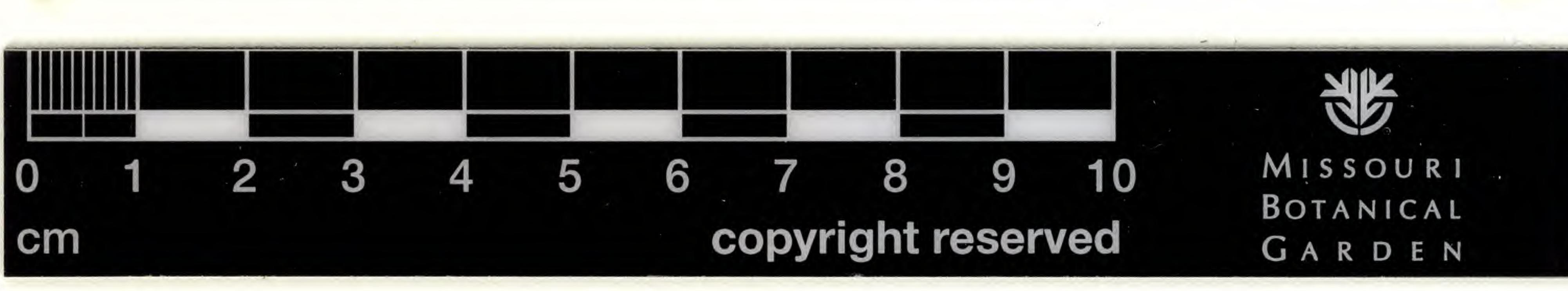
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The regular meetings of the Academy

Of Science, take place every first and third Monday of each month.

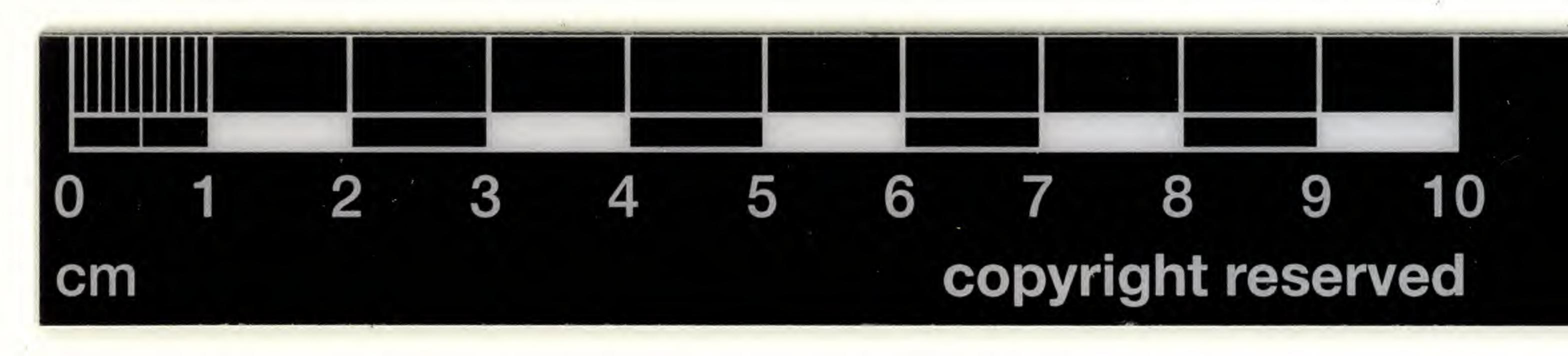
Your punctual attendance is requested at at such meetings, and especially at the next one, which will be held next . Monday, at 8 P. M., at the Polytechnic Hall.

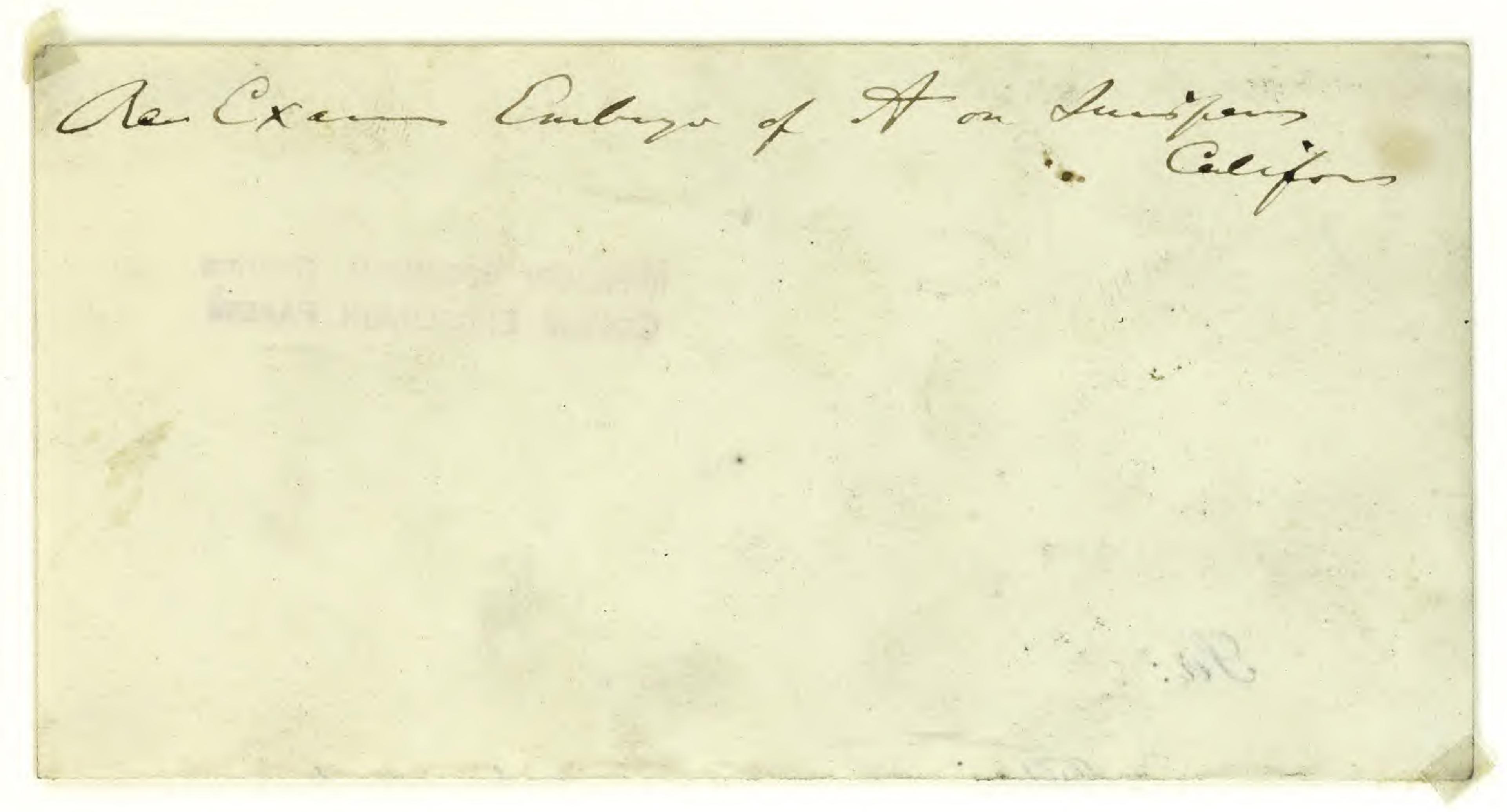
C. V. RILEY,

Recording Secretary.

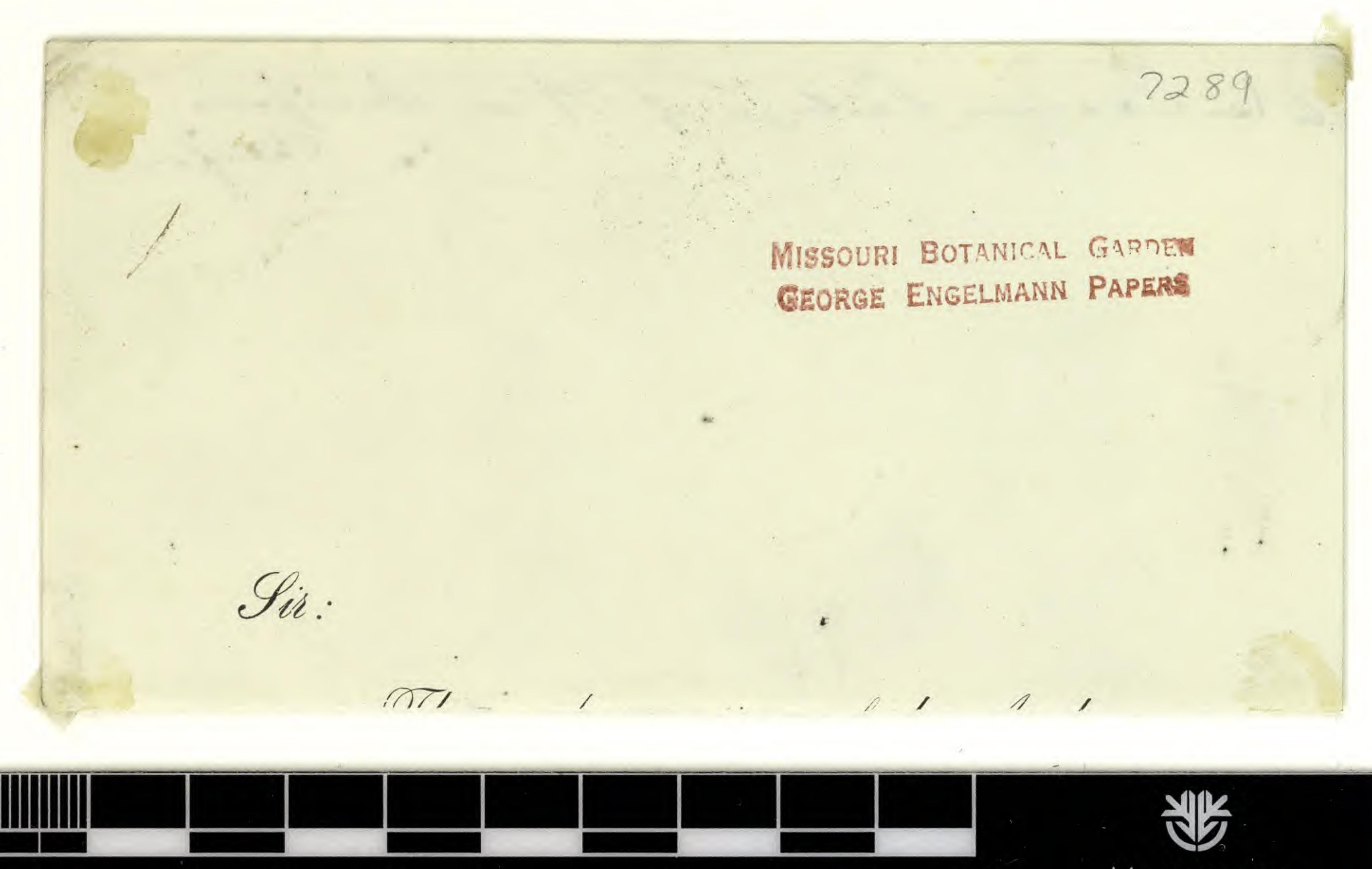
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young fruit has made good program 3. (por no got fil zet developet (or seen?) 15 Pollen alreig felly developed 4 May to June buds 8 no pollinget 7.10.

fil veg mill 9.10.

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quisible fr. immeture 2. Lieben mag i & scarrly visible

Sept & pent fl x your fris 3. (powdrom) Fender 283 March & well Ivologed 61 Blen not fortheforms Bigelow Der Twell Iwally , Billingond 4. 40 ystril at helf grown Jam, Tolon of fully open Much " Ary. 9 0 pril want ripe Calif 700 June of pl. vis. Ele, ropelle get devery 1. (insignis) 70 fr. fell grown but immelene 8. (promp aleif. 6380 Summing for helfgrown Bizilow 2" May 9 & - for very small get 91 10 Satirium Califer 182 May of flowers very small, samely visible fr veg smill get 11 Selicians Califor 2671 Squ! I fl almost really to open. I fl rom for really rife 13 abietien organ Soph of well Iwelow, who get of 4 " for metter If American Colonely And I ready to open. fr. immettem 15 L'arricate Fenden 282 manh J but very small and import mante nych dagt of var injurfeel bands - ripe fruit How I fully sweet of exple

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729013 hriter at early spring In a few the flowerburg one Develope, I visible but sarely Toller cloudy regularly leveloped (it is orgina) The good fruit has already estart This is 1.3.4. Hund olds Maxicon vagination of fuller & Azilver plats on P. pondisora. in about the Jame slage in May are May or June - flower, very slightly lurly ho Isllen ot - frit smill get only -it mortery at a P. porterose & obsigning. Hayant of may to open, but fil not gente mathere i 14, Aminianen. 6x12, Laips a popularose [much] have fighty wife frid Sept a detal. The flowers of ful (nanty) meture 5. on ponderosa (Parry) on Setriana, on Alerias Obrecia ig et A. minutain. MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPERS

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et dissonis Ang 26 1880 Arouthobium orikutet lugel on Pin ponderosa, Litt Deglow Aug 19 brown the gellow Any Aiver north of Sivon's Mile at femiles on same tree om sperimen shows both above to gether on Jame branchet. Meles withell die down after flowing, selve flower township, and their seem to persist longer, at least 3 or 4 gears seronding brown now for some axilyes friling at the whom the whom no fit was truly of male spikes with 5-7 pair of flow, mostly 3 parts of fourther, 4 parts, The Homen flow opening first at days 4 - parts - but of the chamber of. the speries, convey on the state periky 4-5 pain of flowers also on Black Bute. Arcentholium Diranic alas near Sissons on Alies consolor on Methaela ab L' Sooo feet eleviti; mly Jemiler den, much more sleaden grungh, approaching A. Americana, frit much smalle femile spikes 4 - 6 or en 7 prinof flowing frit much smiller, .. swonding flowering

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brancher on fritig sperius, same as last, but of from the same axils as the fruiting piles, and lackind (or below) them, while is never the case with the list do it a. divani catam. ? Sombing in flowing seconding flowing brombelets behind the primary flowing one, which at have not seen in last No male sp ceen, probably because frask flower of and withered acting Arrentholium on Tin Lambertione Any 31" MISSOURI BOTANICAL GARDEN GEORGE ENGELMANN PAPENS

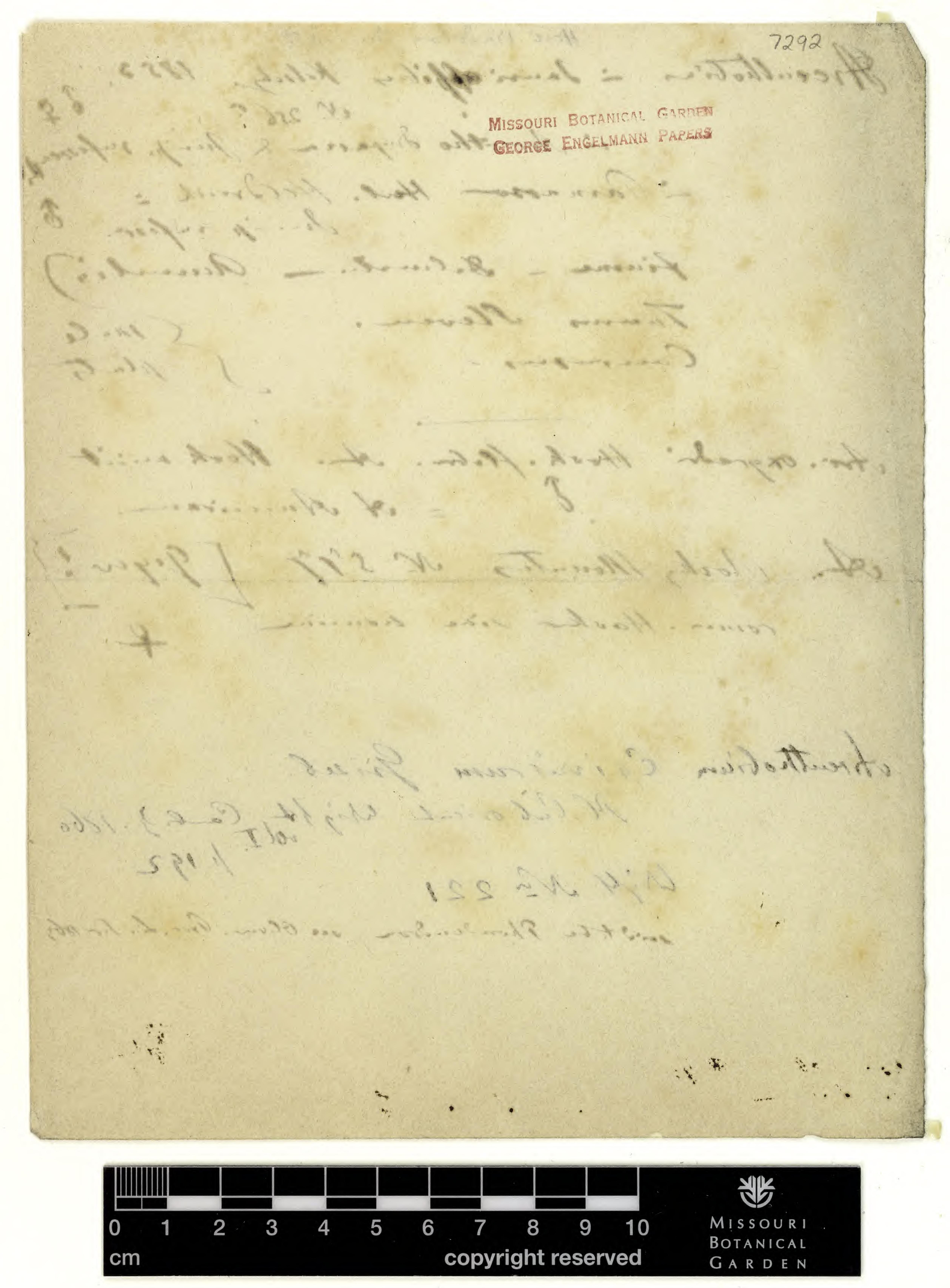
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Hert Viadobo Jan. 1858 Arcentholis in Arrentho Suparra & Junip. suferrey - Parmasso Hal. Heldruck i Su-je refeso. Finne - Delmate - Aumelia) Taums Pleven. (male Canny Jelant, Aro. organd Hook. Alber. An Hook mit A. Northy Mountes N. STY [ Gryn!]
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M. Colonical Wight Cally 1866

Will No 221 said tite Thombendron, see Oliver. Inr. Li. Ser 1863 MISSOURI

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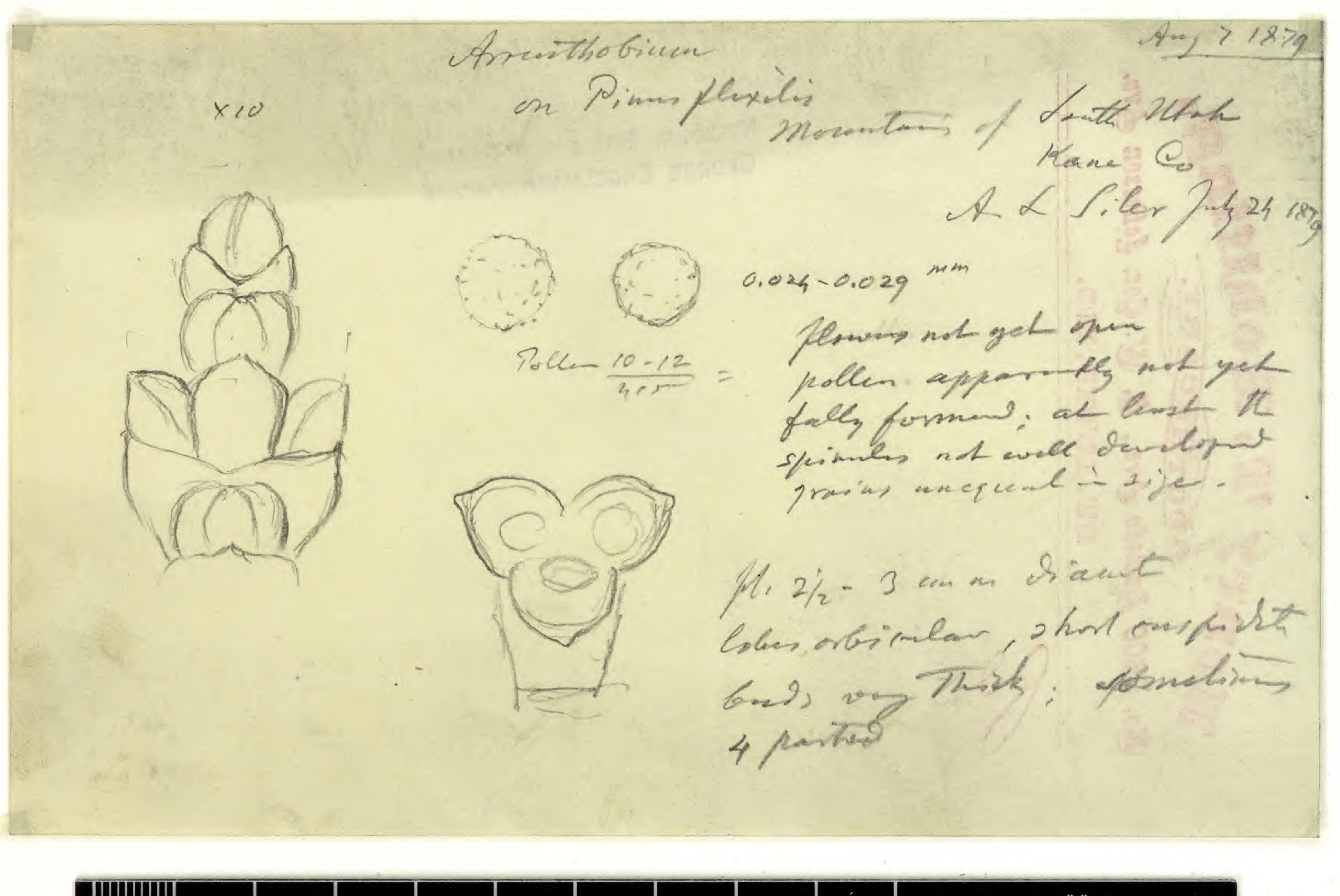
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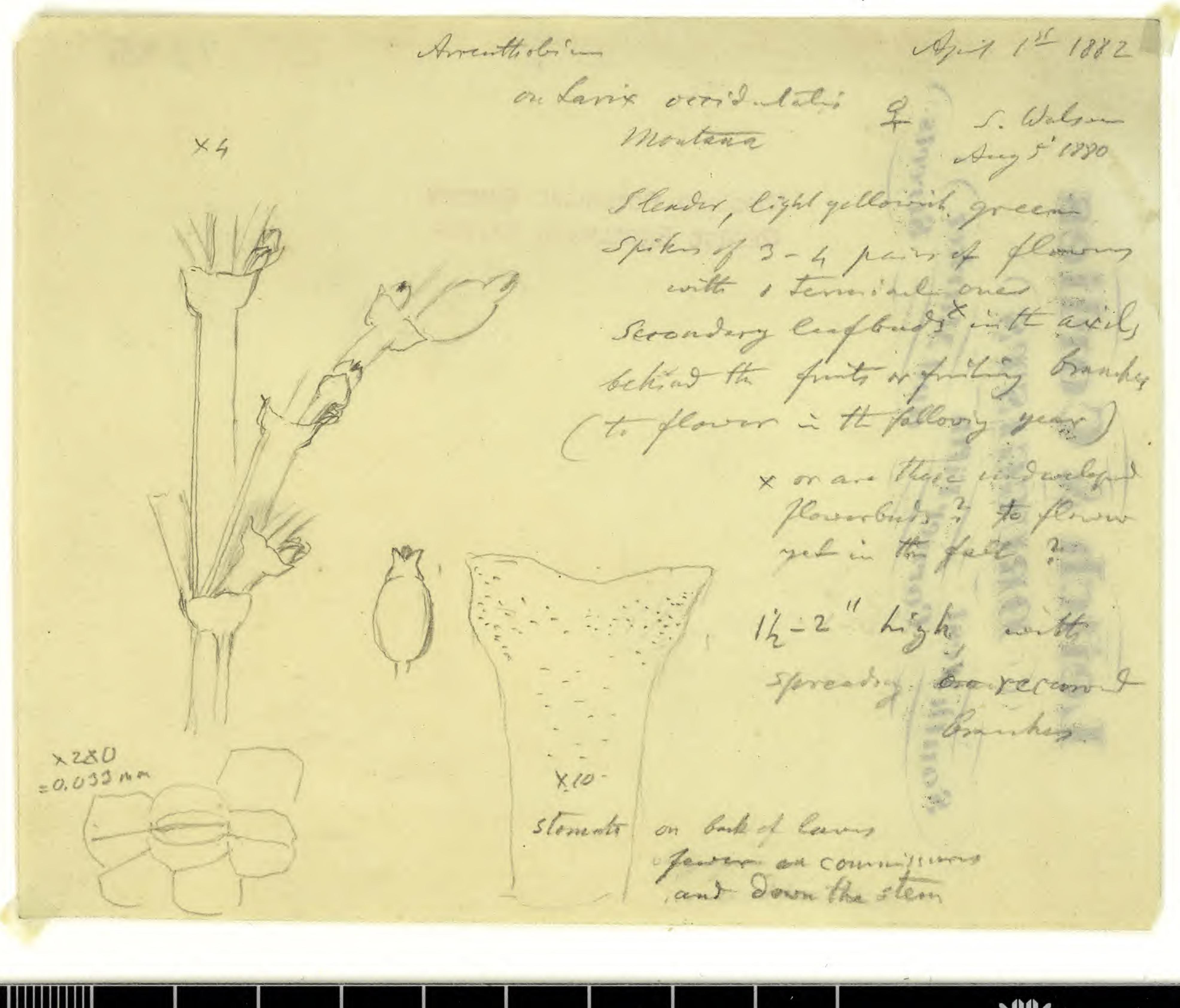


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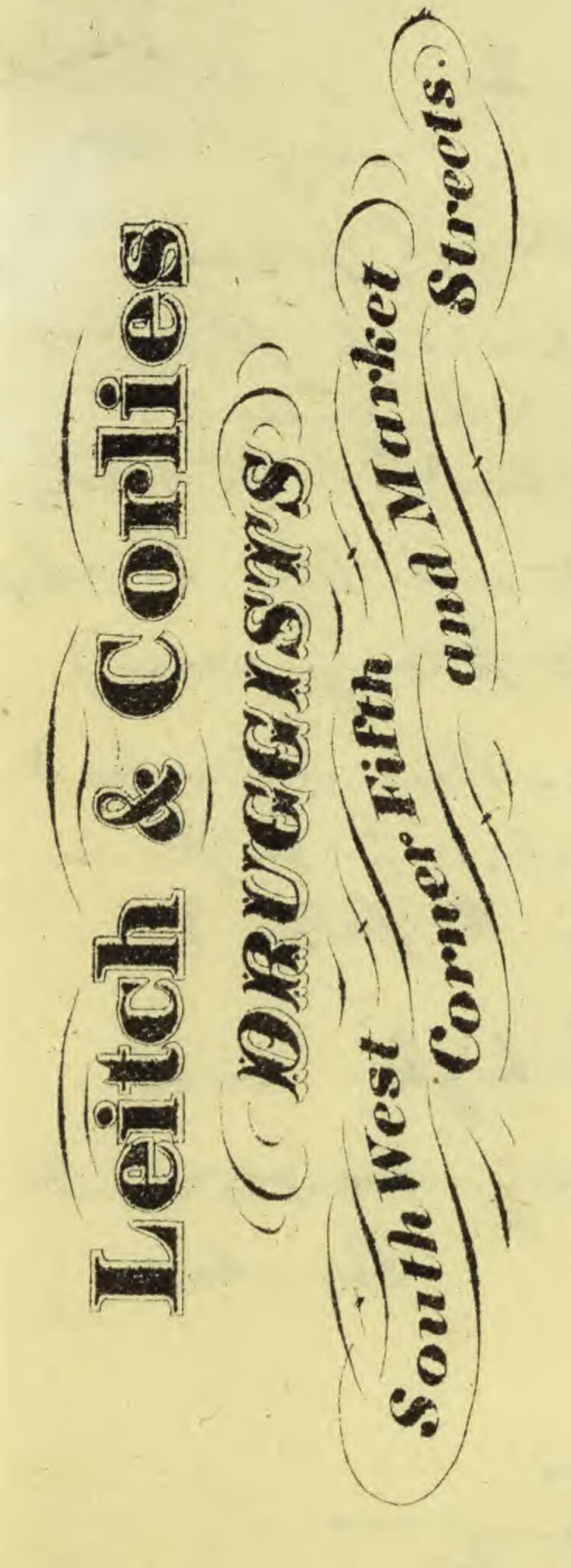
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